



Docket No.: 2611-0229PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Wataru MATSUMOTO

Application No.: 10/520,061

Confirmation No.: 5128

Filed: January 5, 2005

Art Unit: 2112

For: METHOD AND APPARATUS FOR
GENERATING CHECK MATRIX

Examiner: S. W. Rizk

INFORMATION DISCLOSURE STATEMENT
(SUBMISSION AFTER NOTICE OF ALLOWANCE
BUT PRIOR TO PAYMENT OF THE ISSUE FEE)

Handcarry To:
U.S. Patent and Trademark Office
Customer Service Window – MS Issue Fee
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on the PTO-SB08(s), attached hereto.

06/11/2007 DEHMANU1 00000074 022448 10520061
01 FC:1806 180.00 DA

II. COPIES

☒ Copies of cited U.S. patents and patent application publications are not included. Copies of foreign patent documents and non-patent literature are included.

III. CONCISE EXPLANATION OF THE RELEVANCE

(Check at least one box)

☐ a. DOCUMENTS IN THE ENGLISH LANGUAGE - The patents, publications, or other information listed on the attached PTO SB08 are in the English language and therefore, do not require a statement of relevancy.

☐ b. DOCUMENTS NOT IN THE ENGLISH LANGUAGE - A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

☒ c. ENGLISH LANGUAGE SEARCH REPORT - An English language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(III)(A)(3).

☐ d. OTHER - The following additional information is provided for the Examiner's consideration.

THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(d): After the mailing date of a Notice of Allowance. See the Statement Under 37 C.F.R. § 1.97(e).

IV. STATEMENT UNDER 37 C.F.R. § 1.97(e)

(check only one box)

The undersigned hereby states that:

☐ a. Each item of information contained in the IDS was first cited in any communication from a foreign Patent Office in a counterpart foreign application not more than 30 days prior to the filing of this IDS; or

☒ b. Each item of information contained in the IDS was first cited in any communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

☐ c. No item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the IDS.

☐ d. Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was first cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application and, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

V. PAYMENT OF FEES (check one box)

☒ The required fee is listed on the attached Fee Transmittal.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 02-2448.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Dated: June 7, 2007

Respectfully submitted,

By 

D. Richard Anderson

Registration No.: 40,439

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Attorney for Applicant

Attachment(s):

- ☒ PTO-SB08
- ☒ Documents
- ☒ Foreign Search Report
- ☒ Fee
- ☐ Other:



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/520,061-Conf. #5128
				Filing Date	January 5, 2005
				First Named Inventor	Wataru MATSUMOTO
				Art Unit	2112
				Examiner Name	S. W. Rizk
Sheet	1	of	1	Attorney Docket Number	2611-0229PUS1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (<i>if known</i>)				
	BA	WO-2004/006444-A1	01-15-2004			✓
	BB	WO-03/073621-A1	09-04-2003			✓
	BC	WO-03/056705-A1	07-10-2003			✓

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Vasic et al., "Lattice Low-Density Parity Check Codes and Their Application in Partial Response Systems" <i>ISIT</i> , pg. 453 (2002)	
	CB	Matsumoto et al., "Irregular extended Euclidean geometry low-density parity-check codes" <i>International Symposium on Communication Systems Networks and Digital Signal Processing</i> , pp. 148-151 (2002)	
	CC	Matsumoto et al., "Irregular Low-Density Parity-Check Code Design Based on Euclidean Geometries" <i>IEICE Trans. Fundamentals</i> , Vol. E86-A, No. 7 (2003)	
	CD	Matsumoto et al., "Irregular Low-Density Parity-Check Code Design Based on Integer Lattices" <i>ISIT</i> , p. 3 (2003)	
	CE	Rosenthal et al., "Constructions of Regular and Irregular LDPC Codes Using Ramanujan Graphs and Ideas from Margulis" <i>ISIT</i> , p. 4 (2001)	
	CF	Vontobel et al., "Irregular Codes from Regular Graphs" <i>ISIT</i> , p. 284 (2002)	
	CG	Chiani et al., "Design and Performance Evaluation of Some High-Rate Irregular Low-Density Parity-Check Codes" <i>IEEE Global Telecommunications Conference</i> , pp. 990-994 (2001)	
	CH	Rosenthal et al., "Constructions of LDPC Codes Using Ramanujan Graphs and Ideas from Margulis" <i>Proc., 38th Allerton Conference on Communication</i> , pp. 1-10 (2000)	
	CI	Chung et al., "Analysis of Sum-Product Decoding of Low-Density Parity-Check Codes Using a Gaussian Approximation" <i>IEEE Trans., on Information Theory</i> , Vol. 47, No. 2, pp. 657-670 (2001)	

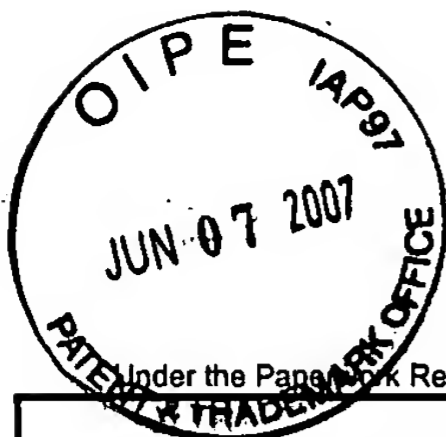
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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Birch, Stewart, Kolasch & Birch, LLP

DRA/vd



1FW

PTO/SB/17 (05-07)

Approved for use through 05/31/2007. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL For FY 2007		Complete if Known	
		Application Number	10/520,061-Conf. #5128
		Filing Date	January 5, 2005
		First Named Inventor	Wataru MATSUMOTO
		Examiner Name	S. W. Rizk
		Art Unit	2112
		Attorney Docket No.	2611-0229PUS1
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27			
TOTAL AMOUNT OF PAYMENT	(\$) 180.00		

METHOD OF PAYMENT (check all that apply)	
<input type="checkbox"/> Check	<input type="checkbox"/> Credit Card
<input type="checkbox"/> Money Order	<input type="checkbox"/> None
<input type="checkbox"/> Other (please identify):	
<input checked="" type="checkbox"/> Deposit Account	Deposit Account Number: 02-2448
	Deposit Account Name: Birch, Stewart, Kolasch & Birch, LLP
For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)	
<input checked="" type="checkbox"/> Charge fee(s) indicated below	<input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee
<input checked="" type="checkbox"/> Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17	<input checked="" type="checkbox"/> Credit any overpayments

FEE CALCULATION							
1. BASIC FILING, SEARCH, AND EXAMINATION FEES							
	FILING FEES		SEARCH FEES		EXAMINATION FEES		
		<u>Small Entity</u>		<u>Small Entity</u>			
Application Type	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fees Paid (\$)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	
2. EXCESS CLAIM FEES							
						<u>Small Entity</u>	
						Fee (\$)	Fee (\$)
Fee Description							
Each claim over 20 (including Reissues)						50	25
Each independent claim over 3 (including Reissues)						200	100
Multiple dependent claims						360	180
Total Claims		Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims		
13		- 20 =	x	=	Fee (\$)		Fee Paid (\$)
HP = highest number of total claims paid for, if greater than 20.							
Indep. Claims		Extra Claims	Fee (\$)	Fee Paid (\$)			
2		- 3 =	x	=			
HP = highest number of independent claims paid for, if greater than 3.							
3. APPLICATION SIZE FEE							
If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
Total Sheets		Extra Sheets	Number of each additional 50 or fraction thereof		Fee (\$)	Fee Paid (\$)	
		- 100 =	/50 =		(round up to a whole number) x	=	
4. OTHER FEE(S)							
Non-English Specification, \$130 fee (no small entity discount)							
Other (e.g., late filing surcharge): 1805 Submission of an Information Disclosure Statement						180.00	

SUBMITTED BY			
Signature		Registration No. (Attorney/Agent)	40,439
Name (Print/Type)	D. Richard Anderson	Telephone	(703) 205-8035
		Date	June 7, 2007